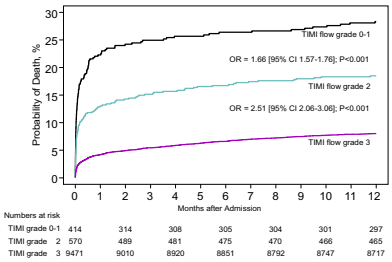
Inside This Issue of JACC

August 12, 2008, Volume 52, No. 7



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Interventional Cardiology

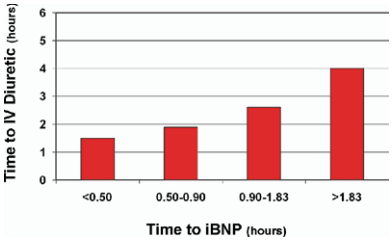
Post-Procedural TIMI Score Predicts 1 Year Mortality in ACS Patients

Ndrepepa and colleagues assessed the impact of baseline and post-procedural Thrombolysis In Myocardial Infarction (TIMI) blood flow grade on 1-year mortality in over 10,000 patients with acute coronary syndromes (ACS) undergoing percutaneous coronary intervention. Post-procedural TIMI flow grade more strongly predicted 1-year mortality than the initial TIMI flow grade. This study suggests that restoring normal epicardial flow improves mortality in ACS patients. **See page 512. See figure.**

Coronary Spasm

Re-Examining the Significance of CAS

There are 2 reports on coronary artery spasm (CAS) in this issue. Wakabayashi and colleagues tested Japanese patients for CAS 10 to 20 days after acute myocardial infarction treated by percutaneous coronary intervention. Spasm was provoked in approximately 75% of cases and these patients were almost 2 times more likely to have an event during follow-up. Ong and colleagues tested patients presenting with ACS in whom electrocardiogram abnormalities and biomarker elevation were present, but not obstructive coronary artery disease. Spasm was provoked in ~50%, suggesting that CAS may be the etiology of chest pain in these patients. These 2 studies suggest that CAS may not only be the cause for chest pain in some patients, but may also identify higher-risk patients. **See pages 518, 523, and 528.**



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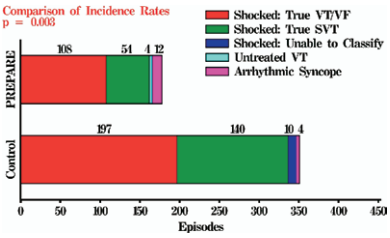
Heart Failure

Early BNP Assessment May Speed Diagnosis and Treatment of HF

Maisel and colleagues hypothesized that measuring B-type natriuretic peptide (BNP) early after presentation to the emergency department would reduce the time to diagnosis of decompensated heart failure (HF) and thereby to treatment with diuretics. Using data collected from the ADHERE registry, patients with the longest time to BNP measurement also had the longest time to treatment. The later the treatment took place, the fewer patients were asymptomatic at the time of hospital discharge. This study confirms the hypothesis that delays in measuring BNP are associated with delays in the administration of diuretics. **See page 534. See figure.**



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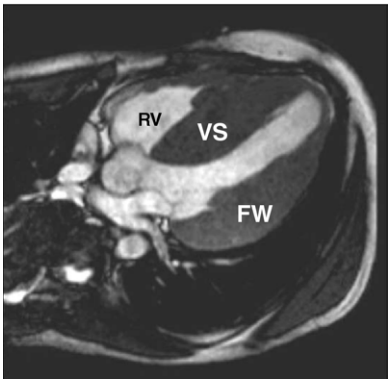
Heart Rhythm Disorders

Settings and Testing for Initial ICD Implantations

The need for routine defibrillation threshold testing (DFT) for all patients undergoing implantable cardioverter-defibrillator (ICD) placement and the optimal initial detection and treatment algorithms are addressed in 2 articles in this issue. Wilkoff and colleagues show that standardized settings to distinguish supraventricular and ventricular tachyarrhythmias and the use of anti-tachycardia pacing safely reduced the frequency of shocks. Blatt and colleagues used data from the SCD-HeFT trial to assess outcomes based on initial DFT testing. A total of 98% of patients had a DFT <20 J; there was no difference in survival or shock efficacy between patients who had a DFT <10 J and those who had a DFT >10 J. These 2 studies suggest that DFT testing is not mandatory and that careful initial programming can safely reduce the frequency of shocks. **See pages 541, 551, and 557. See figure.**



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Hypertrophic Cardiomyopathy

CMR for the Diagnosis of Hypertrophic Cardiomopathy

Olivotto and colleagues performed cardiovascular magnetic resonance (CMR) imaging on almost 300 patients with hypertrophic cardiomyopathy (HCM). While the average left ventricular (LV) mass index was higher in HCM patients, it was within 2 SDs of the control measurements (i.e., <95th percentile) in 21% of confirmed HCM patients. This occurred most often in patients with focal wall thickening, rather than global thickening. This study demonstrates that the LV mass index may be normal in some patients with HCM and cannot be used to exclude this diagnosis. **See page 559. See figure.**